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STATISTICS OF LIFE.

[THE following statistics, which we find in the *Boston Evening Transcript*, over a signature which we think we recognize as that of a most reliable and well-informed writer, are, to our minds, interesting and valuable, and we therefore reprint them.—EDITORS.]

Do you wish to know the comparative healthiness of city and country life? From a large mass of authentic facts there have been gathered results deeply interesting. By taking the averages in large cities, and comparing them with the same number of persons in the country, the true answer will appear. Let us, therefore, take the following table, made nearly one hundred years ago, respecting the city of Paris, in France, and the country which is ten, fifteen, and twenty leagues distant from it. The record embraces 13,189 persons in each of the several places. London is included, without any mention of country life in England, though it shows a strong resemblance to that in France. The number of deaths in these three places, between the ages specified, is as follows:

| Ages. | | | | |
|-----------|--------|------|----------------|------|
| 1 to 2 | Paris | 4131 | In the country | 5738 |
| " | London | 4413 | | |
| 2 to 5 | Paris | 1410 | " " | 957 |
| " | London | 1046 | | |
| 5 to 10 | Paris | 740 | " " | 585 |
| " | London | 443 | | |
| 10 to 20 | Paris | 507 | " " | 576 |
| " | London | 396 | | |
| 20 to 30 | Paris | 698 | " " | 937 |
| " | London | 1146 | | |
| 30 to 40 | Paris | 885 | " " | 1095 |
| " | London | 1370 | | |
| 40 to 50 | Paris | 962 | " " | 912 |
| " | London | 1442 | | |
| 50 to 60 | Paris | 1062 | " " | 885 |
| " | London | 1113 | | |
| 60 to 70 | Paris | 1271 | " " | 727 |
| " | London | 870 | | |
| 70 to 80 | Paris | 1108 | " " | 602 |
| " | London | 626 | | |
| 80 to 90 | Paris | 361 | " " | 159 |
| " | London | 282 | | |
| 90 to 100 | Paris | 59 | " " | 16 |
| " | London | 42 | | |

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The extraordinary number of deaths of infants during the first two years of their lives (spent in the rural districts of France), is owing to the fact that one sixth of all the children born in Paris were once nursed in the country; and these were mostly children not much cared for. In London, one hundred years ago, one person out of every 31 died each year; and in the country one out of 33.

Let us look at this law of nature from another angle in earlier times. Take the tables beginning 1667 and ending 1682. During these 16 years there were, in London, 196,196 births, and 308,335 deaths. In Dublin, Ireland, from 1668 to 1680, inclusive, there were 6157 births and 9865 deaths. These figures show that these cities must have the aid of the country to keep their population up. A most emphatic confirmation of the above is found recorded in the "*Conducteur General de l'Etranger dans Paris*," France, 1842, by Teyssède. It is as follows:

The city of Paris having been very little frequented by strangers until the fifteenth century, the inhabitants were of the same kind as those of the surrounding country. One can speak of an *inhabitant* of Paris, meaning thereby an individual who resides in the city; but it would be very inaccurate to call him a *citizen*, if by this word you would imply that his family has been continued in Paris through several centuries. It is extremely rare to find a man who can count many generations of *Parisian* ancestors. Out of the 800,000 individuals who now (1842) compose the population of the capital, there are not even one thousand whose ancestry can be traced back, through father and son, to the reign of Louis XIII. (1610). *In our day it is as necessary that the country should supply Paris with men as with eatables.*

The cause of this singular absorption of men is not unknown to us, but it would not be proper to develop it here; but we would content ourselves with saying that the effects are more visible in males than in females. Young Parisian boys of the second and third generations show much of the form and manners of girls; and when married they seldom have children who live. From these facts, we conclude, that any family, who from taste or necessity resides in Paris *uninterruptedly* in the same house, apartment or shop, is doomed irrevocably to extinction.

The family of Rochefoucauld is among the oldest of the present noblesse; and it is said that they have sustained themselves by adhering to their traditional habit of residing eight months of every year in the country.

Let us look a little closer at these authentic records, so carefully made by the philosophers of Europe.

In the human family it is found that the number of births and deaths, in any country or State, is varied by circumstances. Consider one fact, in France, shown in the following table:

| Years. | Baptisms. | Marriages. | Deaths. |
|--------|-----------|------------|---------|
| 1709 | 16,910 | 3,047 | 29,288 |
| 1710 | 13,634 | 3,382 | 23,389 |
| 1711 | 16,593 | 4,484 | 15,920 |

The explanation is this: In the year 1709 there was a famine in France, much like the recent one in Ireland. The number of births, therefore, in the next year was only 13,634, whereas the ordinary number, in the years preceding and following it, was over 16,000. This shows how the want of proper food diminishes the number of births. This statement will be confirmed wherever there is an unusual or extreme scarcity of nourishment.

So also the number of deaths in 1709 was 29,288, from the same cause, while the average in preceding and succeeding years was 18,000. For like reason, the number of marriages, in 1709 and 1710, was nearly one quarter less than in ordinary years.

Moreover, the record of deaths in Paris, from 1708 to 1767, being 57 years, shows that long and severe winters were a cause of unusual mortality. The winters of 1740 and '41 were more extended and severe than any since 1709; and in 1740 there were 25,284 deaths, and in 1741 there were 23,574. The winter of 1754 was the next in severity; and in that year there were 21,724 deaths. These are remarkable additions to the annual average of 18,000.

By tables of mortality we are able to tell the number of persons who survive; thus making death take a census of the living. For example, in Paris, at the period above considered, it was found that one death occurred out of every 35 persons. Take, therefore, the annual average of 18,000 deaths, and multiply that by 35, and it gives 630,000 as the number of living inhabitants.

There is much to be learned from the following table, which records the births, marriages and deaths in several villages near Genay, in France, containing 2,661 inhabitants.

| Years. | Baptisms. | | Marriages. | Deaths. | |
|--------|-----------|----------|------------|---------|----------|
| | Males. | Females. | | Males. | Females. |
| 1770 | 59 | 57 | 20 | 37 | 41 |
| 1771 | 38 | 48 | 13 | 36 | 37 |
| 1772 | 44 | 46 | 13 | 45 | 44 |
| 1773 | 57 | 37 | 18 | 26 | 27 |
| 1774 | 60 | 45 | 18 | 43 | 42 |
| | 258 | 233 | 82 | 187 | 191 |

Total of births 491, and of deaths 378.

This district of country had few rich people at that time; but the laboring classes had nourishing food and protective clothing. The table shows about six children to each marriage; and 25 boys to 23 girls. It shows, also, that annually one out of every 35 persons died; and that the number born there was one quarter greater than the number who died there; and that more females died there than males. It was so because the men emigrated. There was a great scarcity of grain in the years 1771 and 1772, which accounts for the diminution in the number of marriages.

In Montbard en Bourgogne, France, from 1765 to 1774, inclusive, there were born 413 males and 413 females; and there were

137 marriages, thus giving six children to each marriage, while in Paris there are only four.

In Semur en Anxois, from 1770 to 1774, inclusive, there were born 404 males and 372 females. There were 141 marriages, thus giving five and a fraction to each marriage.

Let us look a little further, taking the tables of births, marriages and deaths kept in the city of Paris from 1745 to 1766. It is found that the months in which the greatest number of children are born, are March, January and February; and those in which the least number are born, are June, December and November. Taking all the births from 1745 to 1766, inclusive, we find that there were born in March, 37,778; in January, 37,691, and in February, 35,816; while in the same years there were born in June only 30,857, in December 32,064, and in November 32,836.

According to the above-named tables, the months in which the greatest number of persons die are March, April and May; and in which the fewest, are August, July and September. During the 22 years the number of deaths were, in March, 42,438; in April, 42,299; and in May, 38,444. The number in August, 28,520; in July, 29,197; and in September, 29,251.

These statistics are taken from France, because the members of the French Institute used the greatest caution in gathering them. The lessons they teach, to a country like ours, are full of solemn admonitions.

C. B.

REPORT OF PROF. FERDINAND HEBRA'S LECTURES ON VARIOLA,

DELIVERED AT THE GENERAL HOSPITAL AT VIENNA.

[Translated from the *Allgemeine Wiener Zeitung*, Nos. 36, 38, 39, 40, for the Boston Medical and Surgical Journal.—Continued from page 477.]

BY B. JOY JEFFRIES, M.D.

In rare cases of variola we have a dermatitis variolosa, or diphtheritis cutanea. When a large surface is deprived of its epithelial covering, a metastatic action commences, which covers the skin with a mass of exudation, like that of croup, white, firm and fibrous, and adhering so strongly to the corium that it cannot be separated. The bleeding that takes place causes this coating to become brown, and even black; then it remains dry, and looks like the sole of a shoe. This does not apparently affect the patient; he does not complain of pain in the part, and we can press or puncture it, or apply concentrated sulphuric acid, without his feeling it. With a favorable termination of the disease such a coating may be thrown off, like a slough, after the application of a caustic, such as potassa pura. This, however, rarely occurs. In one case, Prof. Hebra saw a similar inflammation of the skin in a

person 19 years old, who had been transferred to the smallpox ward from the lying-in hospital, because she had been attacked with an intense variola confluens. Before her entrance into the "birth clinic," a vesicant had been applied to relieve pain. In consequence of this, a mass of pustules came out on the spot where the blister had been. A severe pneumonia supervened, so that she was in great danger. In spite of all, however, she rallied, and the portion of skin that had been blistered became covered with a hard, white coating, and a high fever began. This whole mass afterward came off as a brown slough, and the patient recovered under an expectant treatment, pursued in order at least not to make her hopeless condition worse.

Finally, we must at least mention that some affections of the glands are apt to follow the stadium decrustationis. They are, however, rarely of importance.

It is an interesting fact that the eruption of variola in women generally comes with the menstruation (at least 90 per cent.), and mostly also at the time of a *regular* and not an *irregular* menstruation. With pregnant women the smallpox is very fatal. Experience teaches that the danger is the greater for the mother, the further the pregnancy is advanced, and the reverse as respects the fœtus. Prof. Hebra saw in one case a dead fœtus brought into the world covered with variola. The eruption in such cases does not appear as it would on an adult or on a child. It consists of little swellings of the epidermis like the variola, and similar also to those we see on the udder of the cow. If a woman in the eighth or ninth month of pregnancy is attacked with smallpox, she will give birth to a healthy child, on which vaccination will "take." Under these circumstances the child runs no danger, but the mother so much the more, because in the puerperal state the slightest infection from decomposing animal substance may readily cause pyæmia and death. Hence the smallpox is decidedly more fatal with women. If, on the contrary, a woman in the second or third month of pregnancy takes the variola, there is little danger comparatively for *her*, but the child will die; that is, abortion commonly follows.

For no one, however, is this disease so dangerous as for a new-born child. When such a one is attacked with variola, quantities of papules appear on the mucous membrane. And when we see these, the child's parents must be warned of the unfavorable issue. Prof. Hebra never saw a case of recovery. New-born infants who have not been vaccinated may have a *light* varicella, even if their *parents* never have been protected by vaccination. When the eruption appears on the mucous membrane of the mouth of a new-born child, such an intense glossitis soon appears, that the infant can no longer take the breast. If there is fever in addition, they will refuse the breast as soon as the fifth or sixth day, or perhaps make one or two attempts and then let the tongue fall with a cry

of pain. Even the attempt to pour down milk soon becomes impossible. And so life fades out like a lamp that lacks the oil.

Variola of itself would seldom be fatal in adults, but would run through in some thirty days, were death not occasioned by the absorption of the pus. The disease is seldom fatal in the commencement. If the patient dies at the crisis, we cannot at once assume that it was a "variola in the blood" so long as there was no appearance on the skin. If, during a smallpox epidemic, a person is taken sick with all the symptoms of the stadium prodromorum, and dies in convulsions, and yet *post-mortem* examination reveals nothing, then we might perhaps say that he died from a variola affecting the blood alone. This view *may* be right, but is also as likely to be wrong.

In some cases there may be other appearances on the skin; for example, the skin may be hard, red and infiltrated. Here the disease is speedily fatal. Or there may perhaps be a hæmorrhage, in the cutis, spots of purpura showing themselves. This, however, could only be so explained (i. e., connected with variola) during an epidemic. Mention has been made in history of a pestilential disease called the "black death" or "black smallpox." Possibly this was a fearful epidemic variola that carried off its victims in the stadium prodromorum, and where the *post mortem* revealed nothing but dark effused blood.

Other diseases may occur at the same time with smallpox, but are not *necessarily* concomitant. Any patient with variola may have typhus fever, pneumonia, pleurisy, &c. We often see smallpox after typhus, or typhus after variola.

Treatment.—When we speak of any exanthema and say that it has a definite duration, and follows this or that course, we may readily see that it is like the works of a clock when wound up, which will regularly run down, provided nothing interferes with them. Now we possess no means of altering the character of this exanthema, or of preventing the eruption. We would gladly do the latter if we could.

The idea that cold air, cold water, or "taking cold" will cause a metastasis in variola, is entirely without foundation. Prof. Hebra has seen patients with smallpox who had been exposed from the beginning to the end of the disease to severe cold, and under the most unfavorable circumstances, without the natural course of the disease being interfered with. For example, some years since a day laborer in Gratz was taken sick and could not be received into the hospitals there, which were already crowded. Finding no shelter, he determined to walk to Vienna* as he was, barefooted and scantily clothed. It was the depth of winter, and he was already feverish and had the first appearances of the eruption. On

* Gratz is 125 miles from Vienna. The road runs over the Semmering Pass, which is 3,200 feet above the level of the sea.

the road he was forced to rest over night in barns or sheds, and so made the journey in three weeks, arriving at the Vienna Hospital convalescent, without any metastasis of the disease having occurred.

Thus it would seem that we need not fear the effect of cold in the acute exanthema, as it used to be dreaded. In fact, we give it the preference over heat. For we have never seen that a patient was injuriously affected by being kept cool, but quite the contrary from too great warmth. It is better to keep the patient in any acute exanthema just as he is accustomed to be when in health. There are people who must be well covered to prevent their being chilled. We would not employ cold with these, but, on the other hand, should use it with those who could not bear warmth.

Now as to the effect of medicine. It used to be the custom to follow certain prescribed rules from the beginning. If in the stadium prodromorum the fever lasted two or three days, it was thought that it did so because the eruption did not come out fast enough. Resort was therefore had to various means of assisting it. Some performed venesection, others used epispastics, or sudorifics, or stimulants, camphor and the like, and believed to promote thereby the coming out of the eruption. Experience, however, has proved that bloodletting, sudorifics, stimulants, &c., are of no use, but rather do harm. Just as little is expected from any such treatment when the disease has once reached the eruptive stage.

The true treatment of variola is to look to the accompanying symptoms, which we must endeavor to relieve—the catarrhal affections, headache, &c. We must not, however, expect to induce sleep by opium or similar narcotics. Nor can we allay the itching. No opiate will give the patient sleep before the eighth or ninth day. Opium is therefore useless, except when with catarrh or diarrhœa we might use Dover's powder, or decoctum salep with opium. Except for the above-mentioned symptoms, all internal remedies are unnecessary, unless in private practice we want to use some indifferent medicine; for example, a decoct. althææ with syrup. cortic. aurant., or acidum Halleri (elixir of vitriol). The latter, however, only when there is no appearance of the eruption in the mouth.

The general treatment of variola would commence in the stadium floritionis. Now we may readily observe that some small-pox patients are soon convalescent, the desiccation of the pustules taking place quickly. Our art is therefore evidently called upon to try everything that will hasten the removal or the drying up of the contents of the pustules. Prof. Hebra has endeavored to obtain this end in numerous ways. One would in fact imagine that a fluid so coagulable as the contents of the pustules, might be easily made to dry up. Unfortunately, this is not so readily done. Other physicians have felt the same necessity, and have thought to effect their purpose in a peculiar way, namely, by puncturing each

pustule and touching it with "*lapis infernalis*." But in the lighter forms this is not necessary, and would only be in place in confluent smallpox. The number of the pustules, however, renders it not only impracticable, but the scabs would be pushed up by the continued exudation beneath, and an unprotected spot be left where pus would again form. Prof. Hebra tried sublimate also, which was once considered so useful in the affection of the eyelids in variola. He used sublimate lotions, and pretty strong sublimate baths, but without success. Diluted acids, as nitric, sulphuric, &c., were just as useless. He also employed electricity, merely experimentally, little as he thought and found would be gained by it. Strips of tin foil were laid on the skin, and the stream sent through in the customary way. When we consider that the eruption on the mucous membrane of the tongue never becomes pustular, but that the continued maceration caused by the fluids of the mouth empties the vesicles of their contents, we might infer that the same could be done on the skin with water or oil. It would be worth while to use a special apparatus for this purpose—something like a bag of gutta percha, with two stop-cocks, so that it could be filled with water, which would be allowed to flow off—similar to what Langenbeck used for another purpose with wounds. Such an experiment would naturally only be practicable with a variola confuens. On the face, where no such apparatus could be used, we might supply its place by fomentations. The plasters that were once employed, and that are now still in use, have the same object. The emplastr. hydrargyri, or emplastr. de vigo, or emplastr. saponat., &c., can only have any effect by macerating the epidermis. Could we prevent the formation of pus in the vesicles, variola would not be so fatal, for death mostly occurs when the pus begins to decompose and be absorbed. Now, so long as we cannot prevent this formation and absorption, it is the physician's duty, if there has been any chill on the tenth day, or any other symptom of the deposition of pus, to carefully examine the patient daily, or even oftener, from head to foot, and if he finds an abscess to open it at once, remove the pus, and inject diluted sulphuric acid, or a solution of salt, or aqua vulneraria Theden, &c. It is not always practicable to open the abscess from end to end, on account of its size. We would therefore preferably make several incisions on different parts, in order to prevent the sinking down of the pus. The abscess must afterward be kept clean. It is often useful to apply pressure over those parts that have been undermined. If the patient escapes with life from such a metastasis, it will be long before he is thoroughly convalescent.

With regard to diet, Prof. Hebra has seen that if there is no fever, or even if the pulse is somewhat accelerated (from anæmia, for instance), but the *other* symptoms of fever are not present, such as a hot skin, dry tongue, chill, &c., then the taking of food is not contra-indicated. In fact, the pulse of some patients, after they

have taken food, becomes more tranquil, although it had been on the whole increased. Previous to the tenth day a light diet is necessary; after this time we must *support* the patient, encourage and satisfy his desire for food, in order to bring him through the disease. After the fourteenth day, when the course of the disease is natural, and somewhat later, when it is abnormal, tepid baths are decidedly beneficial, not only to wash off the debris of the pustules, and so render the neighborhood of the patient less infectious, but also on the patient's own account.

Prof. Hebra has used cold water and the cold douche with small-pox patients. He did not lose any one subjected to this treatment; but it is hardly to be recommended, as it is really a martyrdom for a feverish person who can scarcely stand from weakness, to get out of bed and go to a bathing tub. The experiment showed, at least, that the cold was not detrimental, but gave no further result. The sulphur baths that were tried in the other wards of the hospital were also of no benefit, and did as little harm, except that one patient with severe variola died under the treatment. It was a case, however, that probably would have been fatal whether or no.

As to the scars or pits, we may say that at the most five per cent. of smallpox patients will have them, but they need not *necessarily* be left by the severest forms of variola. Varicella will, on the whole, leave scars oftener than variola. It depends upon whether the pustules reach *deep* into the corium or not. The formation of a cicatrix *cannot* be prevented. It has been thought that the pitting could be prevented by applying sublimate, and where this could not be used or did not suffice, fat was put on the part, or ungt. cinereum, or emplast. hydrarg., or perhaps emplast. de Vigo, or lead ointment and lead plaster were employed, and recently also collodion. Now it is very evident how these came to be considered beneficial. A physician has had, for instance, a hundred cases of smallpox (and this is quite a considerable number), and has found that "pitting" has occurred in only five of these. He therefore attributes this favorable result to his mode of treatment. Prof. Hebra uses none of these means, and *his* result still remains the same. He formerly tried these different methods, but has now given them up. Collodion causes an unbearable tension of the skin, and he did not feel justified in subjecting a patient to pain and still do him no service. All that he orders to relieve the patient is a cold or tepid lotion, in order to assist the maceration of the epidermis: the cold at the commencement, when there is tension of the skin, and *afterward* the warm, when the cold would not be grateful. And like any lotion for an abscess, these may be united with an inf. herb. rutæ or gratiolæ. This will relieve the tightness of the skin, but will *not* prevent the formation of cicatrices. In some cases poultices are indispensable, on the palm of the hand or the sole of the foot, when the pus-

tules are numerous and painful, which is the case when these parts are callous.

From what has been said, we see that we must treat the symptoms in variola; that we must *watch* the patient with great care, but need only *interfere* when something anomalous occurs. For example, we should direct, for a conjunctivitis, a collyria of gr. i. sublimate with ʒ vi. water, put poultices on swollen glands, open any abscesses, &c. Too many laxatives are to be avoided, for they do more harm than good. Prof. Hebra once (*experimenti gratia*) allowed the bowels to remain without movement, whereby the fever was neither increased nor the patient's condition made worse. An attack of diarrhœa, on the other hand, is to be treated actively.

Supplement on Vaccination.—The idea of vaccination owes its origin to the inoculation of the human pcx, which had long been used in the harems of the East, to preserve the beauty of their inhabitants. This method was afterward used in Europe, although not perhaps very generally. A varicella was used for inoculation in order to produce the mildest form. Soon, however, it was found that just the opposite result was obtained from that wished for; namely, a variola vera was produced, although a varicella had been used to inoculate with. Van Swieten gave the relative mortality as 40 per cent. for those inoculated, and 75 per cent. for those not inoculated. This method was therefore of some benefit, although not very great.

Jenner next came forward (1796), and introduced vaccination at first among a few, and afterward in wider circles. Since then, this great blessing for humanity has spread abroad over nearly the whole world. And although before Jenner's time a few experiments had been made with vaccination, yet they were not continued, and never reached any great extent. Lately remarks have been made here and there against the efficiency of vaccination. And particularly in England, where formerly it was not compulsory by law, and on being made so, met with resistance. In the "blue book," published by Simon, the collected experience of the relative worth of vaccination, not only in England, but also in other countries, is brought together. From this it is proved that persons who have been vaccinated will only have some one of the lighter forms of smallpox instead of the variola vera, and the mortality is very small, generally about 5 per cent., whereas with those not vaccinated, it reaches 30 per cent. These data prove the great value of vaccination, because they are collected from all countries where it is used. Now although vaccination has not answered entirely the expectations at first promised from it, although it is not an absolute protection throughout life against smallpox, and loses its efficacy after a certain number of years, so that the receptability of the variola contagion returns, yet it cannot be denied that its beneficial influence deserves the fullest

acknowledgment. There are cases where even before the vaccine eruption has entirely disappeared, the power of receiving the variola contagion is already present, for if the smallpox virus is once taken into the blood, vaccination is of no avail. We may sometimes see the variola and vaccine eruption going on side by side. This can only prove that the two diseases are *not* identical. Jenner supposed he produced the *same* disease in a milder form by vaccinating.

Variola occurs in those who have been vaccinated, in the majority of cases, between the ages of 15 and 20. This fact would lead us to re-vaccinate about this time. Yet experience shows that the most thoroughly successful re-vaccination does not give *complete* protection. Prof. Hebra observed a case where a patient died in his wards with confluent smallpox, who had been vaccinated and re-vaccinated, and who had, moreover, previously passed through a decided variola. We can understand this when we remember that the individual receptability of most noxious influences, and even of poisons, is very different; so that, for example, many inhabitants of the East habituate themselves to most extraordinary doses of opium and sublimate; and the same with arsenic and other poisonous substances.

Now the question will arise, where shall we take the virus from? As the vaccine was first taken from the udder of the cow, it has been thought best to use the original matter. Only a few of the many attempts to vaccinate the cow have succeeded, but the positive results tend to show that the contagion was transmitted *to* the cow *from* the human species. Jenner, however, was of the opinion that it came from horses. This dispute is not yet settled. The vaccine disease appears to be epidemic and contagious among cows. Prof. Hebra has seen such an epidemic with cows. The contagion appears to be both a fixed and a volatile one. As soon as one cow was attacked, another on the other side of the stable would be also soon affected, although she was milked by a different woman.

Variola, vaccinia, and also the sheep-pox, appear to owe their existence to the same original contagion; for, as has been proved, we can transplant the human smallpox on to cows and sheep, the cowpox on to men and sheep, and the sheep-pox on to man. Even if these experiments do not always succeed, yet the negative results cannot be considered as counter evidence. Perhaps the smallpox virus belonged originally to man, and has become milder by passing through the organism of other animals.

As to the original vaccine virus, experience has shown that when it is immediately transmitted to man, it produces a greater reaction than is caused by the lymph after it has passed through the human species. But this more powerful reaction is to be avoided, and we must take care, especially, with the weak organism of a child, that the vaccine disease does not exert a more powerful in-

fluence than the variola itself. Moreover it is a fact that transmission of the original matter from the cow is quite an uncertain procedure, and those who attempt it must vaccinate twenty or thirty times, whilst the lymph from man, carefully introduced, does not often fail.

It has been argued against vaccination, that we may by it transmit different diseases from one person to another, such as rachitis, scrofula and syphilis. And not long ago a Bavarian physician was accused of doing this, and proceeded against at law. If we mix cowpox lymph with water, we can dilute it to a certain extent, and it will still retain its power of producing vaccinia. Beyond this degree of dilution, it loses this power. If we mix vaccine and syphilitic virus, according as there is more of one or the other, there will be produced *either* vaccinia or a chancre, but never *both* at the same time. We *cannot* transmit both poisons at the same time. In a syphilitic child, however, the vaccine pustule may "degenerate," and then will not form the well-marked, round and full vesicle which we must always have, to be authorized in vaccinating another person from it. From the above it may be seen that there is no ground for the fear of transmitting other diseases with it, as is affirmed by those opposed to vaccination.

It has been asked, at what season should we vaccinate? To this we must answer, that it is perfectly immaterial at what time of the year it is done. If summer has been considered the best time, it only arises from the fact that the "vaccinating doctors" naturally prefer to make their tour then. At the "Principal Vaccinating Institution" of Vienna, about 8,000 children are vaccinated each year; and at all seasons.

As respects the age of children, some physicians would prefer to vaccinate them after teething. Others would rather they should be two or three years old. Now these ideas are not correct, for the younger a child is, the more likely is variola to be fatal. And as we hope to guard against the contagion by vaccination, this should be done as soon as possible. There is no reason why a child fourteen days old should not be vaccinated. And during an epidemic it is even better to vaccinate a new-born infant. Physicians are particularly advised to vaccinate their own children early. Prof. Hebra, being director of the smallpox wards, vaccinated his own children when eight days old, and they have been protected from variola.

Vaccinating is generally done in one of the following ways:—either directly from one child to another with a lancet, or collecting the lymph on ivory points or in little phials. Punctures are made at several different points on the skin, by pushing the lancet through the epidermis into the cutis, pressing it down with the thumb, turning it a little in the wound, and wiping it off when drawing it out, by pressure over the puncture with the thumb of the other hand. It is immaterial whether the wound bleeds or

not. The same is done when ivory points are used, first making the lymph warm and moist with saliva. If phials are used to collect the virus, they should be those with a cork stopper, and not the old-fashioned ones that required to be *warmed* before filling and emptying, because the lymph loses its power by heat. There has been an instrument proposed like a coarse pen, by which the virus is to be taken up like ink, between the two branches or points. With this, little scratches are to be made. It would not, however, be a good plan, because the vesicles produced are too long and too large.

It makes no difference on what part of the body vaccination is done. We generally choose those places where the scars will do no harm, and will be covered by the clothing. With us the arm is taken as a general rule. Prof. Hebra has seen people who had been vaccinated on the abdomen, and others on the foot.

Still another question is asked—shall we make *several* punctures? This we are accustomed to do on both arms, in order that one or the other may “take.” But we do not deny that a *single* vesicle affords just as much protection as several.

Now, as to the symptoms that appear after vaccination. We shall see that two or three days pass by without anything being seen on the spot, or at most only a minute scab of dried blood. This time represents the stadium prodromorum. Next, on about the fourth day, little prominences are to be seen (which are swollen hair sacs) that become papular, and on the sixth day change into the vesicles that we see on the seventh day. On the eighth, often not till the ninth, the vesicle is fully ripe, but its contents not yet changed to pus. At this time it is also in the best state to transmit the virus to another person. In order to collect the lymph, we make one puncture, and do not press out the fluid, for the purer and clearer it is, the better is it for vaccinating and for preserving. On the ninth day, the contents of the vesicle become milky, and on the tenth there is evident formation of pus, and we shall have a halo (often quite marked) around the pustule. The decrustation commences on the twelfth day; on the fourteenth, the scab is already formed, but often remains adherent some fourteen days more, so that there are cases where four weeks pass before it falls off, just as occurs in variola vera. Formerly, all sorts of purgatives, calomel, sulphur, &c., were given children; but now-a-days these are discontinued, for in a normal case of vaccinia no medicine at all is necessary.

Just as there are anomalies in variola, so we may have them in vaccinia. Now and then we see an abortive case of vaccination, where the pustules afford no protection. In other cases vaccinia is very protracted, the pustules go too deep, there is ulceration, symptoms of fever appear. An erythema or erysipelas, and even a fatal termination in consequence, may occur. Between these two extremes there are, of course, many degrees; for ex-

ample, the "wind pustules," that is, where the contents are quickly absorbed and the vesicle subsides. These afford no protection. In other cases more vesicles form than punctures made. We have an eruption which spreads wider; and perhaps even over the whole body. This generally has the appearance of varicella, and is called vaccinella. Sometimes after vaccination there are some of the accompanying symptoms of varicella, as catarrhal affections, diarrhœa, swollen glands, &c. Often one or the other of the vaccine vesicles aborts; and this is often caused by the rubbing of the clothes. In syphilitic children it sometimes happens that an ulcer forms from the vaccine vesicle, and vaccination then acts just as any other wound would do in those who are already syphilitic.

REMARKS ON PULMONARY CONSUMPTION, &c.

BY EDWARD JENNER COXE, M.D., VISITING PHYSICIAN, CHARITY HOSPITAL,
NEW ORLEANS.

[Continued from page 480.]

IN the preceding remarks, having assumed the position that this disease was really one to be cured by adapting the remedies to the existing symptoms, and assigned many reasons why the number of cures must necessarily be small in number, I now present a summary of the case of Edward Loftus, aged 28 years, who entered Ward 33 of the Charity Hospital, on the 25th of March, 1858, and on the 18th of July following requested his discharge, feeling sufficiently well and strong to resume his occupation as drayman. During that interval, the following facts were developed, the greater part having been witnessed by many observers, physicians and students.

On admission, he stated that for eight months he had been suffering from a severe cough, for the relief of which various remedies had been tried, without benefit. Having, within a few days, caught a fresh cold, which greatly increased the cough and expectoration, causing severe pain in the chest, difficulty in respiration, and occasional bloody sputa, he decided to enter the Hospital. When first seen, his cough was constant, with copious expectoration of muco-purulent matter, slightly tinged with blood. On examining the chest by auscultation and percussion, which was done by several present, besides myself, in addition to decided dullness and positive signs of softened tubercles, there were evidences of acute inflammation. During the several months of continuous treatment, the following grave symptoms were developed in succession: The cough severe and almost incessant, expectoration profuse, exceeding a pint daily for a long time, generally streaked with blood; the system becoming visibly emaciated, night sweats profuse. For five consecutive nights, he discharged from the lungs

upward of a pint of blood, by measure; on the second night of the hæmorrhage, the nurse, apprehending death would occur, requested the assistant house physician to see him. The blood discharged was kept for my inspection, that no doubt could exist as to the character or quantity. After the last profuse hæmorrhage, the mass, at the morning visit, presented the appearance of grumous blood, mixed with a dark greyish substance, likened by one of the physicians present to a portion of the lung. The bowels were for some time very loose, and digestion was much impaired. Finally, to crown all, anasarca and ascites made their appearance, the expressed opinion of all present being that death was now inevitable, the possibility of benefit from further treatment being discussed. The patient, even in such a condition, not unwilling to do or take what was considered necessary, I was willing to continue the treatment, although daily expecting his death.

Such is a plain statement of facts, witnessed daily for successive weeks by many physicians and students; and yet, notwithstanding such an almost hopeless assemblage of symptoms, and the large quantity of different powerful medicines in various modes employed, this man did eventually recover, or, as I insist, he was cured, and walked out a well man. About four weeks after being out, attending to his business as drayman, while in the act of driving, on a hot day, by some accident he fell off, and, the wheel passing over his chest, fractured his right collar bone, for which he was brought to the hospital surgical wards, where I saw him almost daily. As the result of the injury, he had several hæmorrhages, considerable pain, with some coughing, from all of which he eventually recovered, and went out to pursue his business. A few weeks afterward, I met him on his dray, standing, and driving full tilt, when he stopped to thank me for services rendered, and prove the fact of his being well. Months subsequently to that, he paid me a visit in my ward, presenting a picture of robust health.

In surgical records, many marvellous recoveries from the most serious injuries have been handed down as well established facts, one of which was published in this JOURNAL a few years since. Although medical works abound in astonishing and unexpected recoveries, I question whether one can be found that shall surpass in interest and wonder the details of this case. It will be seen that not much mention has been made of the physical signs observed during the progress of the case, which in reality was not required to determine any one point, all being too plainly marked; but, to satisfy all, I will state that at the beginning, and often subsequently, several experienced auscultators did critically examine him, and pronounced the case one of confirmed tubercular consumption. It was more than once remarked that it was needless to try to do more than palliate his condition, and although fully coinciding in the opinion, the man having been placed under my charge, and evincing, as he did, the right spirit, and an ardent hope of recovery,

having long since practically learned the truth of that wise saying, "while there is life, there is hope," I left no stone unturned to comply with his and my own wish. Will any one say both were not rewarded? he with restored health, and myself with a still firmer belief in the real power of medicine to control consumption, thus wresting from that disease some of its supposed necessary fatal effects, and inspiring true hope in the minds of patients and physicians.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

DEC. 27th. *Case of Laryngitis; Tracheotomy, followed by recovery.*—Dr. CABOT reported the case.

The patient was a lady, 37 years of age, under the care of Dr. Faulkner, of Jamaica Plain. She had enjoyed good health until three years ago, when she had an attack of rheumatism in the ankle, with much swelling and pain. This recurred more or less every winter, coming first in one place and then in another, each time lasting three or four weeks. During the last year the knees have enlarged several times, without much pain or soreness, the swelling subsiding after a time. Last June, she took a severe cold, and remained hoarse all summer, making it hard for her to sing; she thought the throat was strained by trying so hard. Three or four weeks before the operation, she was troubled with "croup"; the throat was swelled and very sore, she could not sleep at night, and felt as if she should choke. The patient was unwilling to submit to treatment, either internal or external, both of which were urged by Dr. Faulkner.

Dr. Cabot was called to see her on the night of Sept. 2d, and found her with very noisy, shrill breathing; drowsy, unable to lie down, face sublivid, pulse very small and rapid; in short, she was on the verge of fatal asphyxia. There was no appearance of false membrane about the throat or fauces. No time was lost in placing her upon a table prepared for the purpose, etherizing her, and, with the assistance of Dr. Faulkner and Dr. Seaverns, opening the trachea at as distant a point from the larynx as practicable, and introducing the double trachea-tube. The relief to the breathing was immediate, and the consequent improvement to the complexion likewise.

The next day she was very comfortable, having had a quiet night, sleeping most of the time—the first quiet sleep she had had for a number of nights. She was ordered iodide of potassium, and to have the larynx sponged with a solution of tartaric acid in water. She continued to improve daily. On the 8th, when the soreness about the wound had somewhat diminished, Dr. C. made a digital examination, and found slight apparent fulness about the epiglottis and rima, but not marked, however. Soon after this date a marked improvement occurred in the condition of the larynx, as shown by the passage of air more freely, coincident with an attack of rheumatism in one knee. On the 19th, she was able to wear a cork in the external tube, thus breathing through the opening in the back of the tube and the larynx, dur-

ing the whole night, without any trouble; and on the 20th the tube was removed.

Dr. Faulkner reports that since the operation she has had no affection of the joints, and no sickness, except nervousness. The voice is not quite clear. Singing does not weary her as before, but she cannot sound the high notes. She says she is troubled with catarrh, and "a dropping into the throat."

Dr. Cabot remarked that the coincidence of an attack of rheumatism with an amelioration of the laryngeal trouble led him to surmise that the larynx might have been swollen in consequence of a rheumatic affection, and he mentioned it that the profession may be led to examine other cases of chronic and acute laryngitis, in reference to this question, and either confirm or refute the supposition.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 26, 1860.

CLOSE OF THE SIXTY-FIRST VOLUME—VALEDICTORY OF THE EDITORS.—With the present number of the JOURNAL, the sixty-first volume closes, and with it terminates, also, the connection which has existed for the past five years of the present editors with its management.

The dissolution of our official relations to the JOURNAL, and, through it, to the medical public, is not, as may well be imagined, a matter of indifference with us. Maintained, as they have been, for the period above mentioned, we can truly say that although they have necessitated the expenditure of a very large amount of time and labor, they have in many respects proved highly advantageous to ourselves. The training which an editor of a medical periodical is obliged to undergo in the faithful discharge of his duties, can hardly be other than wholesome discipline, even if fatiguing, and not infrequently irksome and exacting.

If the care of the JOURNAL has thus not been without its reward, its demands upon our time have long been such as seriously to interfere with those immediate and purely practical duties which cannot be neglected by any who desire the active work of the profession. In this view, it has often occurred to us that the truest and surest way to secure the undivided efforts of competent editors of medical journals, would be to proffer them such pecuniary remuneration as should make them indifferent to, or, in great part, independent of, an increase of their professional business. In this way, a medical man with but a moderate amount of active occupation, could afford to give as much time to the requirements of a journal as he should—otherwise, that end is generally accomplished with difficulty, if at all.

Another point, upon which we wish to say a few words, very nearly regards the future prosperity of the JOURNAL. We refer to the amount of literary aid rendered the editor, in his task. There has not been that supply of articles from the pens of the New-England profession, for which we confidently looked, in the early part of our incumbency.

It has not been for lack of exertion, personally, and by written appeal, on our part, that we have so often been obliged to gaze anxiously upon "a beggarly array of empty boxes," and wonder where the "first article" for the next issue was to come from. We do not wish to be remembered as too querulous, at our last breath—but to those who realize the unceasing call for "copy" which attaches, perforce, to a weekly journal of medicine and surgery, the statement above made will not appear unreasonable. We would bespeak for our successors more aid, in this respect; and we venture to assert that the profession at large, and those who thus kindly cater to its wants, will both reap the advantage, in a fuller presentation of those medical and surgical reports which are worthy of mention and preservation. It would, doubtless, be well if such papers could always be paid for by the publisher of a medical journal, but this cannot frequently be done. If the receipts for this JOURNAL, for instance, allow of but a comparatively small remuneration to its editors, how can its publisher be expected to put himself out of pocket for communications, however valuable? It does seem to us, that a little more *esprit de corps* is demanded. If the JOURNAL is a benefit to the profession, the profession ought to remember it with their pens, as well as with their payments; and, for our worthy publisher's sake, we could wish the latter were tenfold what they are, and that they were always promptly paid. We should add that we leave the JOURNAL in fully as flourishing a condition—as to its subscription list—as when we assumed our editorial duties.

While we confess to a sense of relief from the yoke of unremitting labor, in resigning our charge, we experience no little regret in severing those connections which have existed for so considerable a period, between ourselves as co-editors, and also between us and the publisher and the various *employés* of the office. The JOURNAL has, and will ever have, our best wishes for its prosperity; and, in so far as we personally may be able to advance its interests, we shall be glad so to do. With a cordial endorsement of our successors in office, and a hope, which we cannot doubt will be amply realized, that everything will flourish and advance under their zealous and efficient management, we take leave of our readers, correspondents and friends, with hearty thanks for every favor extended to us, and a true appreciation of the indulgence so uniformly manifested toward us through the entire course of our official career. *Valete omnes.*

HYDROPHOBIA SUCCESSFULLY TREATED WITH CALOMEL.—In the last number of the *American Journal of the Medical Sciences*, is the report of a case of Hydrophobia, by Dr. J. E. H. LIGGET, of Middleburgh, Md., which recovered under the use of calomel, in the dose of one drachm every four hours, the intervals being diminished to six and eight hours, as the symptoms improved. Purgatives were also employed. There was only moderate salivation. The patient was a colored girl, 23 years old. Sixteen or eighteen days before she was taken sick, she had been bitten by a young dog, which had been unusually dull and morose for a day or two, who died afterward with all the symptoms of rabies in its most virulent form. The symptoms began with pain in the great toe (the part bitten), extending up the limb toward the body. At the same time, from being a very lively girl, she became dull, moody, taciturn and irritable. The mind was clear, and she had frequent and violent spasms (of what muscles is not

stated), which could at any time be excited by touching her, by a current of air, or by the sight of water or other fluids. There was intense thirst, but horror and immediate spasm from the sight of water; and expectoration of small quantities of viscid mucus. The pulse was of moderate frequency throughout. The medicine was followed by immediate relief, and the girl recovered in a week.

Dr. Ligget remarks that the diagnosis in the above case has been doubted, for two reasons: *first*, that the patient was a female, and, *secondly*, that she recovered, the disease being supposed to be hysteria. Of course the fact that the patient recovered must throw some doubt on the nature of the disease, since there is no authentic record, so far as we know, of recovery from undoubted hydrophobia. We think, however, that the facts that the dog was mad, and that most of the symptoms of hydrophobia were present in the patient, are very strong reasons for believing that the case was one of genuine hydrophobia. At any rate it would be easy to try the remedy in another case.

CORRECTION.—In the remarks of Dr. PARKS concerning "abscess of the mamma in a young girl," which were printed in the last number, page 501, is an error which he desires us to correct. Instead of the sentence "Velpeau states that he has seen but three cases," read "Nélaton had seen but three cases in young unmarried women in three years, the last of his cases being in a girl of fifteen years."

PRIZE ESSAYS OF THE AMERICAN MEDICAL ASSOCIATION.—All essays offered for the prize must be sent, on or before April 1, to some one of the Committee, who are—Drs. Worthington Hooker (Chairman), New Haven, Conn.; G. C. Shattuck, Boston, Mass.; Usher Parsons, Providence, R. I.; P. A. Jewett, New Haven, Conn.; and Jonathan Knight, New Haven, Conn.

Other medical Journals are requested to copy this.

HEALTH OF THE CITY.—Of the 90 deaths during the past week, 43 were of males, and 47 of females; 35 were of subjects under the age of 5 years, 9 were between 5 and 20, 21 between 20 and 40, 11 between 40 and 60, and 14 above 60. The chief causes of death, next to consumption, were pneumonia and smallpox (of each 10), and scarlatina (7). The deaths by smallpox were equally divided between the two sexes. Of the males, 3 were children and 2 adults; of the females, 2 children and 3 adults. The deaths from unknown diseases include one of a female, aged 53 years, of which the reported cause was "change of life"! The total number of deaths during the corresponding week of 1859 was 76, of which 17 were from consumption, 6 from pneumonia, 1 from scarlatina, 0 from smallpox.

RELATION OF COLOR BETWEEN THE HAIR AND THE BRAIN.—M. Gubler is of opinion that there is a constant relation between the color of the skin and of the cerebral matter. He says that he has thus been enabled to distinguish the brain of a negro amongst seven or eight others. This color is not due to congestion, but to the presence of black granules of pigment, as in the choroid and black matter of the lungs. They are insoluble in strong acids, unlike those due to the presence of sulphates; and are especially observable in the Rachidian bulb and pons.—*Lancet*.

MR. S. T. TROWBRIDGE, of Decatur, Ill., has invented a physician's cane. It consists of a hollow tube, closed at its bottom, and having a semi-tube attached to the knob or handle, and fitted within the cane, and allowed to move freely in and out of it, and forming a receptacle for vials containing medicines. The invention is designed to supersede, to some degree, at least, the use of the saddle bags.—*Philadelphia Medical and Surgical Reporter*.

A NEW JOURNAL is to be published at Kansas City, Missouri, with the title of the *Kansas City Medical and Surgical Review*, and under the editorship of Drs. Maughs and Case.—*Ibid*.

U. S. MARINE HOSPITAL, ST. LOUIS.—There were admitted and treated in this Hospital, to which Dr. Wm. M. McPheeters is Physician and Surgeon, during the year 1859, nine hundred and thirty-one patients—of which number eight hundred and forty-one were discharged, forty died, and fifty still remain on hand and under treatment.—*St. Louis Medical and Surgical Journal*.

MEDICAL PROPERTIES OF THE TOMATO.—There may, perhaps, be some foundation for an assertion which has been lately several times repeated, that the tomato is an efficient "deobstruent," whatever that may be, and will be a good substitute for calomel by reason of its gentle action on the liver. It is said to be a useful and harmless remedial agent in biliary obstruction, and is described as "almost a sovereign remedy for dyspepsia and indigestion"—obviously an exaggeration, perhaps a misstatement. It has been tested in cough, and succeeded; so have many thousand remedies. There is little or no positive evidence in its favor; but enough of positive assertion and probable virtue to make it worth the attention of experimental pharmacologists. It may be used not only as an article of *materia medica*, but has the advantage of being an agreeable item in the *materia alimentaria*.—*London Lancet*.

TROY LUNATIC ASYLUM.—At Troy, N. Y., in September last, a new Lunatic Asylum, in connection with the Marshall Infirmary, was opened. The institution has a beautiful location, upon Mount Ida, overlooking the city, and commanding a magnificent view of the Hudson and its valley. It is purposed for the reception of 70 patients, and is built in the most substantial manner.—*Nash. Jour. of Med.*

COLLEGE OF PHARMACY IN CHICAGO.—This institution was opened and the first course of lectures commenced on the 9th of November. The session will last for twenty weeks, and three lectures a week will be delivered. The members of the Faculty are Dr. J. V. Z. Blaney, Professor of Chemistry, Dr. F. Scammon, of Pharmacy, and Dr. J. H. Ranck, of *Materia Medica*.—*Ibid*.

PUBLISHER'S NOTICE.—The 62d Volume of this JOURNAL will commence with the weekly issue of Feb. 24, and will be under the editorial management of Drs. F. E. OLIVER and CALVIN ELLIS, of this city. These gentlemen are already well known to the readers of the JOURNAL, and it is believed that their selection as Editors will meet the approval of the profession abroad, as it certainly does of those at home, so far as it has been made known.

The present Editors retire with the sincere respect and best wishes of the Publisher and all connected with the JOURNAL Office.

ERRATUM.—Page 497, 9th line, for "humor" read *tumor*; same page, 29th line, for "variolorus" read *variolosus*. Page 501, line 25 from bottom, for "months" read *weeks*.

Books and Pamphlets Received.—Clinical Lectures on the Principles and Practice of Medicine. By John Hughes Bennett, M.D. (From the Publishers.)—A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton. (From the Publishers.)—Introductory Lectures and Addresses. By George B. Wood, M.D., Philadelphia.

MARRIED.—At Salem, 20th Inst., Fernando C. James, M.D., of Hickory Grove, N. C., to Miss Frances Maria Willard, of Salem.

Deaths in Boston for the week ending Saturday noon, January 21st, 60. Males, 43—Females, 47.—Apoplexy, 1— inflammation of the bowels, 1— inflammation of the brain, 2— disease of the brain, 1— consumption, 18— convulsions, 1— croup, 1— dropsy, 3— dropsy in the head, 3— drowned, 1— debility, 1— puerperal disease, 3— erysipelas, 1— bilious fever, 1— scarlet fever, 7— typhoid fever, 1— hernia, 1— disease of the heart, 2— influenza, 1— intemperance, 1— congestion of the lungs, 1— inflammation of the lungs, 10— marasmus, 1— measles, 2— old age, 1— palsy, 1— pleurisy, 2— premature birth, 1— rheumatism, 1— smallpox, 10— sore throat, 1— suicide, 1— tumor of the face, 1— unknown, 5— worms, 1.

Under 5 years, 35— between 5 and 20 years, 9— between 20 and 40 years, 21— between 40 and 60 years, 11— above 60 years, 14. Born in the United States, 58— Ireland, 19— other places, 13.

